BC-MF Microcast stainless steel submersible pumps

TWO-CHANNEL

- Sewage
- Domestic use
- Civil use
- Industrial use

※ **Experience high-efficiency, quality, and durability**

※ **Constructed entirely from micro-cast stainless steel, BC-MF submersible pumps offer superior corrosion and abrasion.**

PERFORMANCE RANGE

- Flow rate up to **850 l/min** (51 m³/h)
- Head up to **17 m**

INSTALLATION AND USE

BC-MF stainless steel submersible pumps are designed to drain dirty and sewage water in domestic, civil, and industrial settings. Featuring a TWO-CHANNEL impeller, they can efficiently pump liquids containing suspended solids up to 50 mm in diameter with short fibers and handle wastewater, sewage, surface water, and sludge-mixed water in residential properties.

※ The hydraulic configuration of the volute and **TWO-CHANNEL** impeller results from advanced fluid dynamics calculations, delivering superior performance and efficiency for notable energy savings.

※ The **TWO-CHANNEL** impeller provides excellent performance and high energy efficiency, generating increased pressure for pumping solids up to **50 mm** in diameter, making it the best choice for wastewater drainage.

INCLUDES

※ Power cable length **10 m**

※ Float switch (exclusive to single-phase models)

APPLICATION LIMITS

- Depth below water level up to **5 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Capable of processing suspended solids up to **Ø 50 mm**
- **Minimum immersion for continuous service:**
  - **290 mm for BC 10/50-MF**
  - **330 mm for BC 15/50-MF**
  - **360 mm for BC 20/50-MF**

AVAILABLE UPON REQUEST

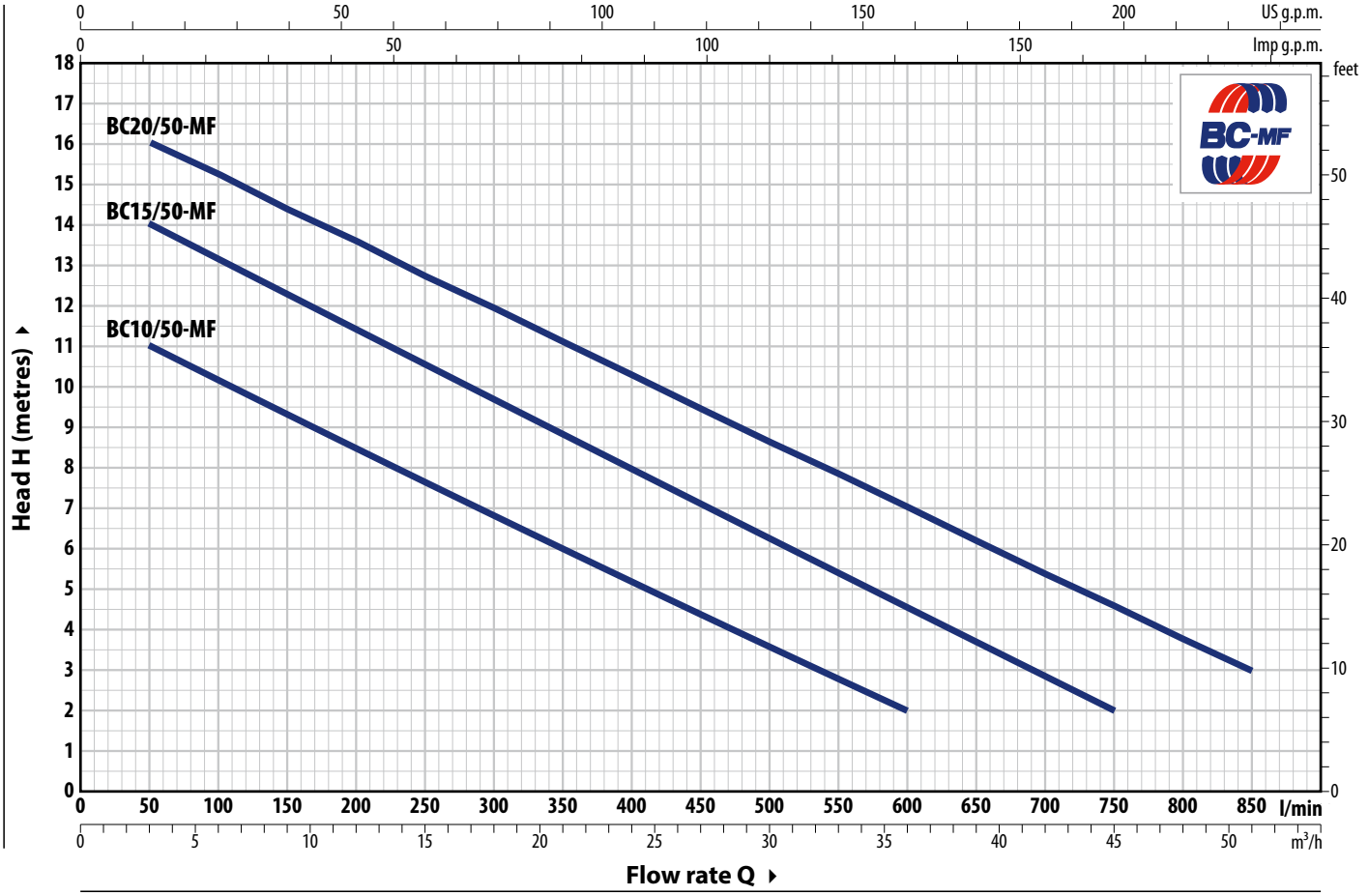
※ Different voltage requirements 60 Hz frequency

PATENTS - TRADE MARKS - MODELS

- Patent No. EP2313658
- Patent No. IT0001428923

CURVES AND PERFORMANCE DATA

50 Hz



TYPE		POWER (P2)		Q	m³/h	0	3	6	12	18	24	30	36	42	45	51
Single-phase	**Three-phase**	**kW**	**HP**		l/min	**0**	**50**	**100**	**200**	**300**	**400**	**500**	**600**	**700**	**750**	**850**
BCm 10/50-MF	**BC 10/50-MF**	0.75	1			12	11	10	8.5	7	5	3.6	2			
BCm 15/50-MF	**BC 15/50-MF**	1.1	1.5	**H**	metres	15	14	13	11.5	9.7	8	6.3	4.6	3	2	
BCm 20/50-MF	**BC 20/50-MF**	1.5	2			17	16	15.3	13.5	12	10.3	8.6	7.0	5.3	4.5	3

Q = Flow rate **H** = Total manometric head

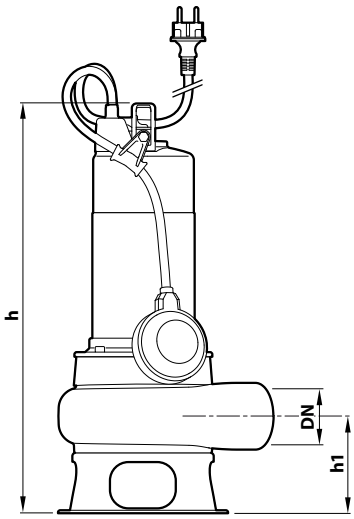
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

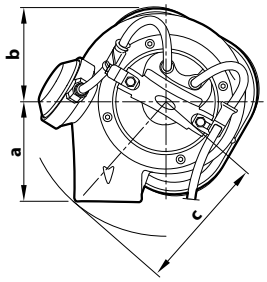
ABSORPTION

TYPE **Single-phase**	VOLTAGE **230 V**
BCm 10/50-MF	5.5 A
BCm 15/50-MF	8.0 A
BCm 20/50-MF	10.0 A

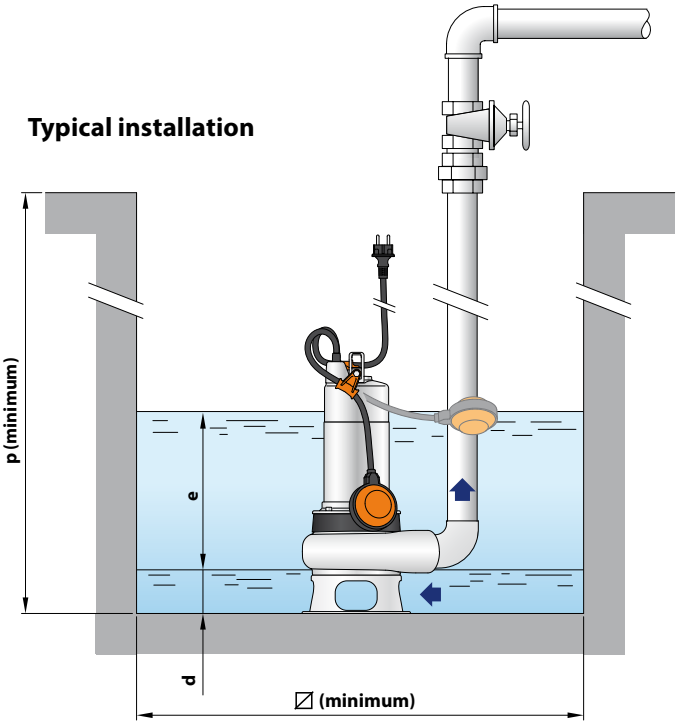
TYPE **Three-phase**	VOLTAGE **400 V**
BC 10/50-MF	2.2 A
BC 15/50-MF	3.1 A
BC 20/50-MF	3.9 A

DIMENSIONS AND WEIGHT





Typical installation



TYPE		PORT	Passage of solid bodies	DIMENSIONS mm									kg	
Single-phase	**Three-phase**	**DN**		a	b	c	h	h1	d	e	p	⍁	1~	3~
BCm 10/50-MF	**BC 10/50-MF**	**2"**	**Ø 50 mm**	102	95	145	450	107	60	adjustable	500	500	15.2	14.0
BCm 15/50-MF	**BC 15/50-MF**						483						17.8	16.2
BCm 20/50-MF	**BC 20/50-MF**						513						20.0	17.8

PALLET CAPACITY

TYPE		NO. OF PUMPS
Single-phase	**Three-phase**	
BCm 10/50-MF	**BC 10/50-MF**	45
BCm 15/50-MF	**BC 15/50-MF**	30
BCm 20/50-MF	**BC 20/50-MF**	30

MATERIALS AND COMPONENTS

1	**Pump body**	Micro-cast **AISI 316L** stainless steel with ISO 228/1 threaded port
2	**Base**	Stainless steel **AISI 304**
3	**Impeller**	TWO-CHANNEL type in micro-cast **AISI 304** stainless steel.
4	**Motor sleeve**	Stainless steel **AISI 304**
5	**Motor cover**	**AISI 304** stainless steel for BC 10/50-MF Cast iron with cataphoresis treatment for BC 15/50-MF, BC 20/50-MF
6	**Motor shaft**	Stainless steel **AISI 316L**

7 Double mechanical seal in oil chamber

Seal	Shaft	Location	Materials
MG1-14D SIC	Ø 14 mm	Motor side	Silicon carbide / Graphite / NBR
		Pump side	Silicon carbide/Silicon carbide/NBR

8 Capacitor (exclusive to single-phase models)

9 Electric motor

BCm-MF: single-phase 230 V - 50 Hz with winding integrated thermal motor protection
BC-MF: three-phase 400 V - 50 Hz

– Insulation: class F
– Protection rating: IP X8

10 Power cord

Power cable encapsulated with epoxy resin both in the grommet area and where the conductors exit the sheath, for absolute insulation against moisture and water.

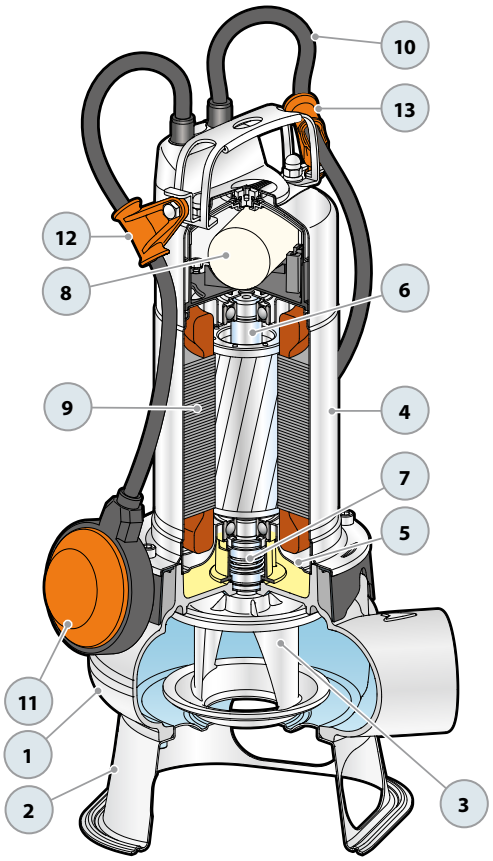
Type 'H07 RN-F' (Schuko plug exclusive to single-phase models)

※ Standard length 10 metres

11 Float switch (exclusive to single-phase models)

12 Tilting device for the float cable
(exclusive to single-phase models)
Patent No. IT0001428923

13 Power cable strain relief
Patent No. EP2313658



SEWAGE LIFTING SYSTEM KIT VX-MF - BC-MF

VERSION WITH HORIZONTAL DELIVERY AND ¾" GUIDE PIPES

For **VX /35-MF**	CODE ASSPVX35ST	DN **2"**
Per **VX /50-MF , BC /50-MF**	CODE ASSPVX50ST	DN **2"**

※ Kit consisting of:

Coupling foot

Solids rail with ring nut and seal

Support for guide tubes

VERSION WITH VERTICAL DELIVERY AND ¾" GUIDE PIPES

For **VX /35-MF**	CODE ASSPVX35STV	DN **2½"**
For **VX /50-MF, BC /50-MF**	CODE ASSPVX50STV	DN **2½"**

※ Kit consisting of:

Coupling foot complete with counterflange

Solids rail with ring nut and seal

Support for guide tubes

● ACCESSORIES AVAILABLE FOR ORDER

RUNNING GUIDE

※ For **VX /35-MF**	CODE ASSFL005
※ For **VX /50-MF , BC /50-MF**	CODE ASSFL006

Complete with ring nut and gasket

GUIDE TUBE SUPPORT

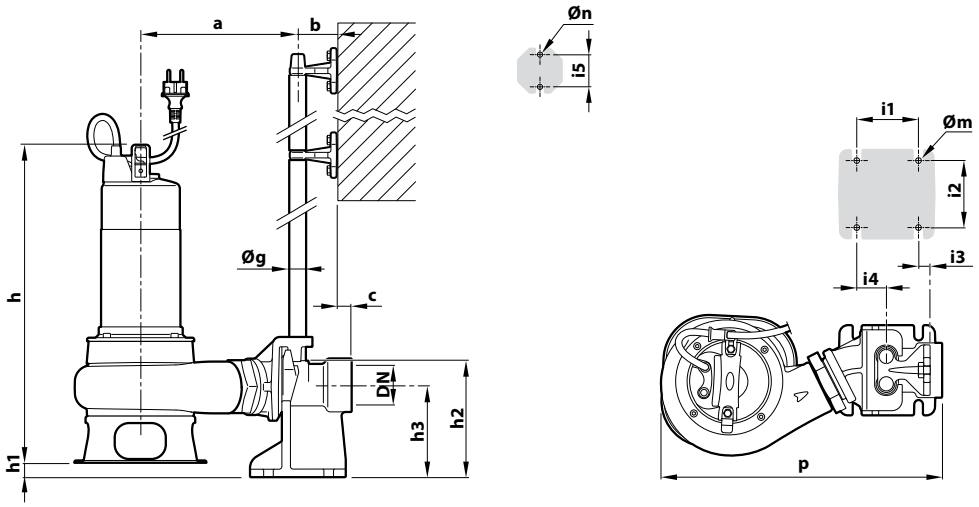
※ For Ø ¾ **"** guide tubes	CODE 859SV340INTFA

To ensure stability, insert a support every 2 metres along the guide tube

GUIDE TUBE (AISI 304 stainless steel)

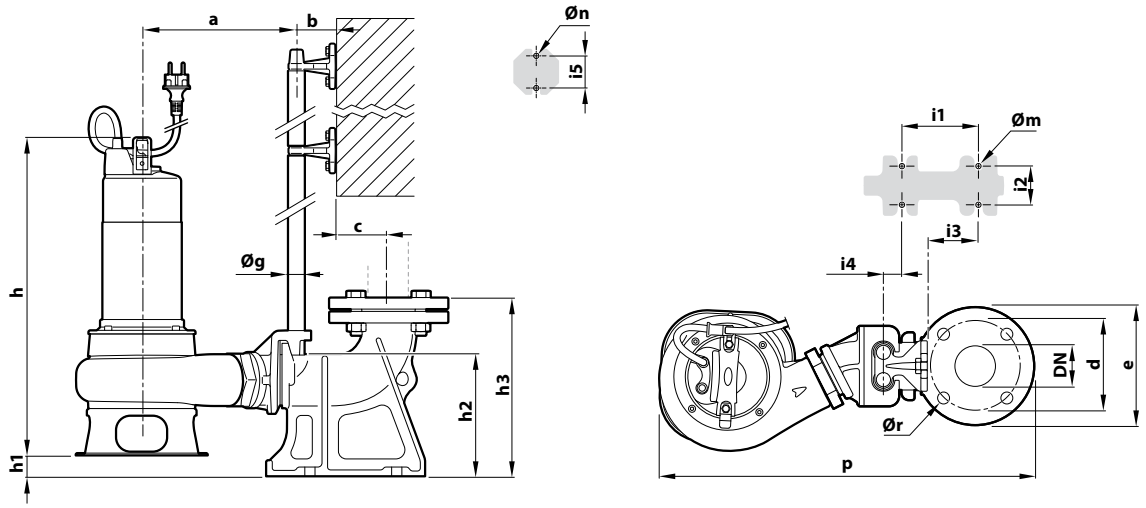
※ 2 metres Ø ¾" guide tube	CODE 54SARTG0052F
※ 3 metres Ø ¾" guide tube	CODE 54SARTG0053F
※ 6 metres Ø ¾" guide tube	CODE 54SARTG0056F

DIMENSIONS (Version with horizontal outlet)



TYPE		Passage of solid bodies	PORT	DIMENSIONS mm															
Single-phase	**Three-phase**	mm	DN	a	b	c	p	h	h1	h2	h3	i1	i2	i3	i4	i5	Øg	Øm	Øn
VXm 8/35 -MF	VX 8/35 -MF	**40**	**2"**	222	61	17	395	424	25	165	130	85	94	16	40	50	¾"	12	11
VXm 10/35 -MF	VX 10/35 -MF							439											
VXm 15/35 -MF	VX 15/35 -MF							472											
VXm 20/35 -MF	VX 20/35 -MF							502											
VXm 8/50 -MF	VX 8/50 -MF	**50**	**2"**	226			398	435	23										
VXm 10/50 -MF	VX 10/50 -MF							450											
VXm 15/50 -MF	VX 15/50 -MF							483											
VXm 20/50 -MF	VX 20/50 -MF							513											
BCm 10/50 -MF	BC 10/50 -MF	**50**	**2"**					450											
BCm 15/50 -MF	BC 15/50 -MF							483											
BCm 20/50 -MF	BC 20/50 -MF							513											

DIMENSIONS (Version with vertical delivery)



TYPE		Passage of solid bodies	PORT	DIMENSIONS mm																		
Single-phase	**Three-phase**	mm	DN	a	b	c	d	e	p	h	h1	h2	h3	i1	i2	i3	i4	i5	Øg	Øm	Øn	Ør
VXm 8/35 -MF	VX 8/35 -MF	**40**	**2½"**	215	61	52	125	165	503	424	23	164	215	120	72	62	3	50	¾"	14	11	18
VXm 10/35 -MF	VX 10/35 -MF									439												
VXm 15/35 -MF	VX 15/35 -MF									472												
VXm 20/35 -MF	VX 20/35 -MF									502												
VXm 8/50 -MF	VX 8/50 -MF	**50**	**2½"**	217					507	435	21											
VXm 10/50 -MF	VX 10/50 -MF									450												
VXm 15/50 -MF	VX 15/50 -MF									483												
VXm 20/50 -MF	VX 20/50 -MF									513												
BCm 10/50 -MF	BC 10/50 -MF	**50**	**2½"**							450												
BCm 15/50 -MF	BC 15/50 -MF									483												
BCm 20/50 -MF	BC 20/50 -MF									513												